

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

Cohausz & Flörack
Patent- und Rechtsanwälte (24)
Bleichstrasse 14 **06.05.05**
D-40211 Düsseldorf
Tyskland **11 APR. 2005**

06.06.05
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Erledigt
Gelesen

PCT

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY
EXAMINING AUTHORITY

(PCT Rule 66)

Date of mailing **1: 6 -04- 2005**
(day/month/year)

Applicant's or agent's file reference

WY/sd 030345WO

REPLY DUE

within 60 days from
the above date of mailing

International application No.

PCT/IB 2003/002184

International filing date (day/month/year)

10-06-2003

Priority date (day/month/year)

International Patent Classification (IPC) or both national classification and IPC

H04B1/10

Applicant

Nokia Corporation et al

1. ☐ The written opinion established by the International Searching Authority:

☐ is ☐ is not

considered to be a written opinion of the International Preliminary Examining Authority.

2. This **First** (first, etc.) opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(e).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis. For an informal communication with the examiner, see Rule 66.6. For an additional opportunity to submit amendments, see Rule 66.4.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary report on patentability (Chapter II of the PCT) must be established according to Rule 69.2 is:

10-10-2005

Name and mailing address of the IPEA/SE

Patent- och registreringsverket
Box 5055
S-102 42 STOCKHOLM

Facsimile No. **46 8 667 72 88**

Form PCT/IPEA/408 (cover sheet) (January 2004)

Authorized officer

Peder Gjervaldsaeter /LR

Telephone No. **46 8 782 25 00**

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PCT/IB 2003/002184

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion is based on a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
☐ publication of the international application (under Rule 12.4)
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this opinion has been established on the basis of (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."*):

☒ the international application as originally filed/furnished

☐ the description:

pages _____ as originally filed/furnished

pages _____ received by this Authority on _____

pages _____ received by this Authority on _____

☐ the claims:

pages _____ as originally filed/furnished

pages _____ as amended (together with any statement) under Article 19

pages _____ received by this Authority on _____

pages _____ received by this Authority on _____

☐ the drawings:

pages _____ as originally filed/furnished

pages _____ received by this Authority on _____

pages _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to the sequence listing (*specify*): _____

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.

PCT/IB 2003/002184

Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims

Claims

1. 13. 15. 17. 24. 26

Inventive step (IS)

Claims

Claims

1-27

Industrial applicability (IA)

Claims

Claims

2. Citations and explanations:

The claimed invention

The claimed invention relates to the problem concerning noise received in a receiver generated from a transmitter located in the same device.

The problem is solved by controlling attenuation in the receiver to a higher value when the power level of the transmitter exceeds a certain value and to a lower value when no signal is transmitted.

Prior art

In the International Search Report the following documents were cited:

D1: US 6 442 375

D2: EP 1 079 533

D3: US 6 144 473

D4: EP 1 122 554

D5: EP 1 253 720

D6: EP 1 091 497

D7: US 5 691 978

D8: US 6 107 960

D1 describes a system for maintaining operation of a GPS-receiver that is co-located with an interfering transmitter in a single device. According to D1, an AGC control logic monitors the signal from the transmitter to anticipate the beginning of a transmit interval. The AGC control logic generates a control signal that makes the AGC module preserving the gain value through the transmit interval. The

.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

AGC control logic thereby makes the GPS receiver less sensitive to the effects of the transmitter, since the gain value does not deviate from normal operation values, which must then be recovered when the interference from the transmitter ceases. (Se abstract and column 5, line 63 - column 6, line 18.)

D2 describes parallel operation in a device comprising both a receiver (GPS) and a transmitter (GSM). To maintain fully operational reception in the device, the input operation of the receiver is modified when the transmitter is transmitting. The receiver operation is modified by the use of a low noise amplifier having at least two biasing conditions. Different biasing conditions are used when interference from the transmitter is present and when it is not present. When transmitter interference is present a biasing condition related to a gain adjustment improving blocking performance is used. When no transmitter interference is present normal biasing operation is used. (See claims 1-5 and abstract.)

Documents D3-D8 represent the prior art. The claimed invention is not considered to be anticipated by these documents.

Statement of reason

Claims 1, 13, 15, 17, 24 and 26

It is showed in D2 that interference in a GPS receiver can be reduced by adjusting the gain of a variable amplifier. This is done by changing biasing conditions for the reception amplifier when the transmitter in the device is transmitting.

This differs from what is claimed in claims 1, 13, 15, 17, 24 and 26 only in that the claims state that the received signal is attenuated and that D2 states that the amplification of the received signal is altered. To reduce the amplification of a received signal can however be seen as one of a number of possible ways to attenuate a signal. It is also said in the application, for example in claim 24, that attenuation is performed by reducing the amplification applied to the signal.

Since reducing the amplification of a signal is a kind of attenuation (as stated in the application itself) document D2 describes what is claimed in claims 1, 13, 15, 17, 24 and 26.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

What is claimed in these claims is thus not novel in view of what is showed in D2.

Claims 2-12, 14, 16, 18-23, 25 and 27

What is claimed in these claims is either known from D2 or is considered to only constitute details obvious for a person skilled in the art. What is claimed in these claims is therefore not considered to involve an inventive step.

Claims 1-27

What is claimed in claims 1-27 is also not considered to involve an inventive step over what is known from document D1.